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| 10/767,415 | 01/28/2004 | Kuo Yi-Lung | 23724-07791 | 2851 |
| 758 | 7590 | 06/13/2006 | EXAMINER | |
| FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041 | | | HOFFBERG, ROBERT JOSEPH | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2835 | |

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/767,415

Applicant(s)

YI-LUNG ET AL.

Examiner

Robert J. Hoffberg

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Response to Arguments

1. Applicant's arguments with respect to amended claims 1-4 and 7-10 have been considered but are moot in view of the new ground(s) of rejection.

Specification

2. The disclosure is objected to because of the following informalities: Para. 0014, line 7, change "should" to "could". Para. 0014, line 8, change "heating" to "less critical". Para. 0014, line 10, change "should" to "could". Para. 0014, line 12, change "heating" to "less critical".

Appropriate correction is required.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electronic components including high-heat components and the low-heat components, CPU and socket must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claims 7-10 are objected to because of the following informalities: Claim 7, remove "and" after first claim limitation (ending with "low amount of heat") and add "and" after second claim limitation (ending with "unpartitioned chamber"). Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant's use of "far", "relatively", "hotter" and "desired" in claim 1 are relative terms that fail to distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2, 4, 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Osborn et al. (US 6,034,870).

With respect to Claim 1, Osborn et al. teaches a computer system comprising: a computer chassis (Fig. 3, #12) surrounding at least a main chamber (see Fig. 3) within the computer system; a motherboard (Fig. 3, #30) mounted inside the computer chassis, a plurality of electronic components (Fig. 3, #32, #64 and unlabeled components in Fig.4) mounted to the motherboard, the electronic components generating differing amounts of heat during operation of the computer system (Col. 1, lines 17-22), a fan (Fig. 3, #36) mechanically coupled to the computer chassis and configured to direct an airflow (see Fig. 3) through the fan from outside the computer chassis to inside the main chamber of the computer chassis, the air flow for cooling the electronic components; and a plurality of air outlets (Fig. 3, #22, #23 and #24) on the main chamber of the chassis to allow exhaust of heated air from the main chamber to outside the computer chassis, the air outlets located far from electronic components (Fig. 3, #32) on the motherboard that generate a relatively large amount of heat, thereby avoiding a hotter air flow near those components and located near electrical components (Fig. 4, #64 and unlabeled components) on the motherboard for which less heat dissipation is desired, thereby causing a hotter air flow near those components.

With respect to Claims 2 and 8, Osborn et al. further teach that the fan is mounted on a wall (see Fig. 3) of the computer chassis.

With respect to Claim 4 and 10, Osborn further teaches a filter (Fig. 3, #42) mounted in a path of an airflow from the fan, the filter for removing particles from air outside the computer chassis before being blown inside the computer chassis.

With respect to Claim 7, Osborn et al. further teach an apparatus for cooling components on a motherboard of a personal computer, the apparatus comprising: a motherboard (Fig. 3, #30) containing a plurality of electronic components (Fig. 3, #32, #64 and unlabeled components in Fig.4) that generate heat during operation, a high-heat subset of the electrical components (Fig. 3, #32) generating a relatively high amount of heat and a low-heat subset of the electrical components (Fig. 4, #64 and unlabeled components) generating a relatively low amount of heat, a chassis (Fig. 3, #12) covering the motherboard and including a plurality of air outlets (Fig. 3, #22, #23 and #24), wherein the air outlets are located closer to the low-heat electrical components than to the high-heat electronic components (see Fig. 4), thereby generally directing heated exhaust air out of the chassis near the low-heat electrical components instead of near the high-heat electrical components, the chassis housing the electronic components in a single, unpartitioned chamber (see Fig. 3); and a fan (Fig. 3, #36) mechanically coupled to the chassis and configured to direct an airflow (see Fig. 3) from outside the chassis directly into the chassis to cool the electronic components on the motherboard.

With respect to Claim 9, Osborn et al. further teach that a CPU (Fig. 3, #32) mounted on the motherboard, wherein the fan is configured to blow air (see Fig. 3) directly towards the CPU.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn et al. (US 6,034,870).

With respect to Claim 3, Osborn et al. further teach that the fan is configured to blow air directly towards (see Fig. 3) the CPU from outside the computer chassis. Osborn et al. fails to disclose a socket for receiving a CPU. Official notice is taken that plugging a CPU into a socket is well known in the art and would be obvious to one skilled in the art at the time of the invention to plug a CPU into a socket.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen et al. (6,002,586) and Johnson et al. (US 6,282,090) teaches a fan mounted on a chassis directing airflow to as CPU. ATX Specification Version 2.01 (dated Feb. 1997) in section 5.1 teaches an unimpeded and well directed airflow first to cool key components such as the CPU and place outlet vents strategically to allow for proper cooling of other components. Arogast (US 6,989,988) teaches a fan

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generating an airflow successively cooling a second component after cooling a first component. Huang (US 6,735,079) teaches a plurality of air outlets to cool desired areas of chassis. Lau et al. (US 5,440,450) teaches a plurality of air inlets to cool desired areas of chassis.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Hoffberg whose telephone number is (571) 272-2761. The examiner can normally be reached on 8:30 AM - 4:30 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MICHAEL DATEKOVSKIY
PRIMARY EXAMINER

RJH *RJH*

Michael Datekovskiy
06/09/06